

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060248

Luminaire Tested: S124RDR-S1020D850-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060248
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D850-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

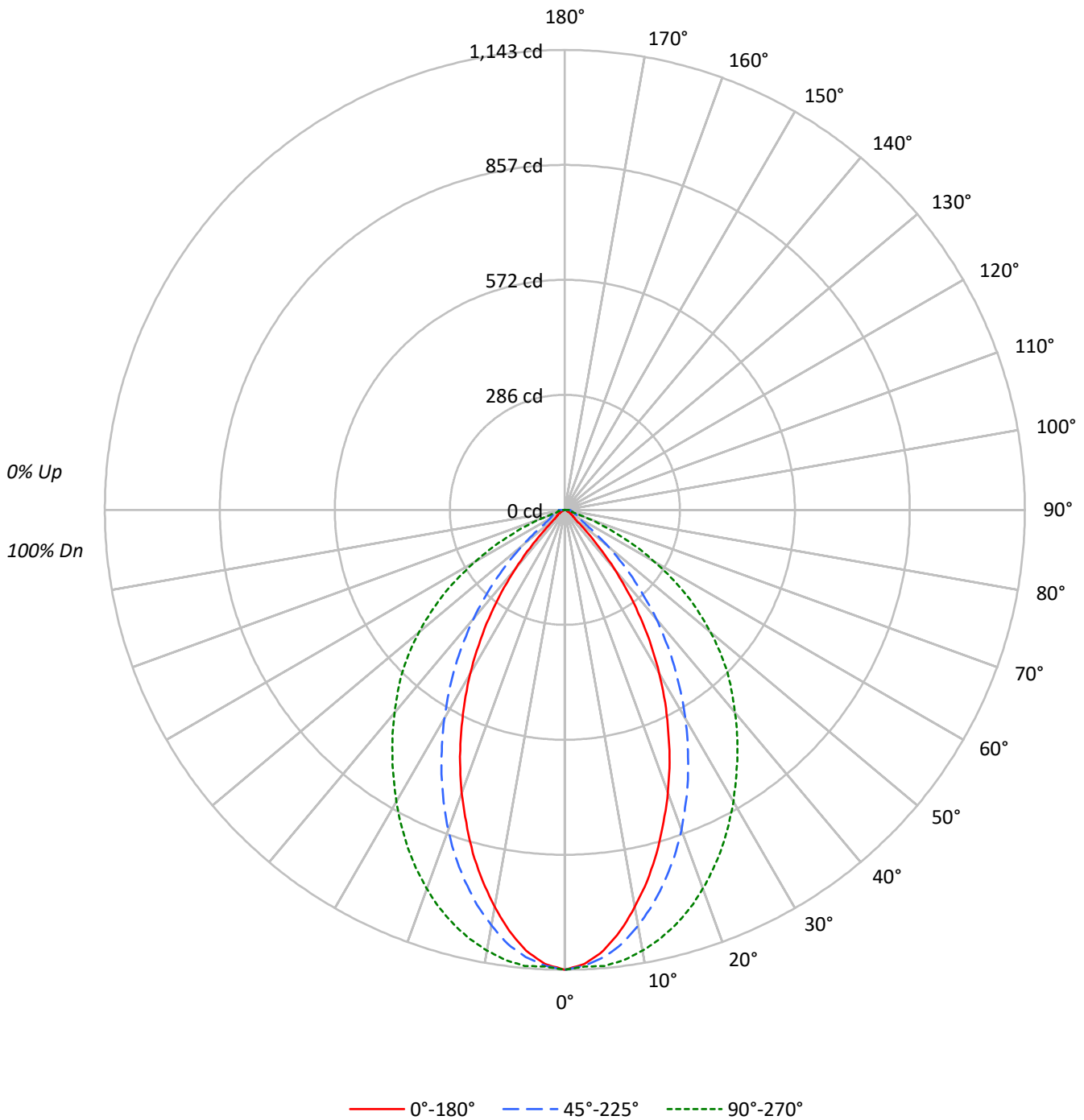
Lumens per Lamp: N/A
Luminaire Lumens: 1440.7 lumens
Efficiency: N/A
Efficacy: 41.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9843	9843	9843
5°	9509	9648	9834
10°	8763	9173	9725
15°	7870	8528	9509
20°	6860	7757	9184
25°	5787	6884	8783
30°	4669	5950	8325
35°	3455	4979	7856
40°	2141	3966	7390
45°	850	2892	6960
50°	378	1815	6326
55°	302	947	5538
60°	208	716	4412
65°	137	711	3034
70°	136	642	1417
75°	180	625	625
80°	268	734	734
85°	534	1462	1057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6960 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	7.3
10°-20°	270.6	18.8
20°-30°	341.6	23.7
30°-40°	313.4	21.8
40°-50°	213.4	14.8
50°-60°	116.3	8.1
60°-70°	50.3	3.5
70°-80°	18.4	1.3
80°-90°	11.8	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	717.0	49.8
0°-40°	1030.4	71.5
0°-60°	1360.1	94.4
0°-90°	1440.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1440.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1100	1115	1116	1128	1138	102
15°	883	914	957	1025	1067	246
25°	609	652	724	840	924	278
35°	329	377	474	624	747	203
45°	70	117	238	421	572	65
55°	20	22	63	232	369	18
65°	7	9	35	72	149	8
75°	5	17	19	19	19	6
85°	5	12	15	15	11	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1143.0	1143.0	1143.0	1143.0	1143.0
2.5°	1129.6	1143.0	1133.6	1136.3	1136.3
5°	1100.1	1114.9	1116.2	1128.3	1137.7
7.5°	1055.8	1077.3	1088.0	1112.2	1128.3
10°	1002.2	1027.7	1049.1	1090.7	1112.2
12.5°	944.5	974.0	1006.2	1061.2	1092.1
15°	882.8	913.6	956.6	1025.0	1066.6
17.5°	814.3	851.9	904.2	986.1	1037.1
20°	748.6	786.2	846.5	939.1	1002.2
22.5°	680.2	719.1	786.2	889.5	964.6
25°	609.1	652.0	724.5	839.8	924.4
27.5°	539.3	584.9	661.4	787.5	881.4
30°	469.6	515.2	598.4	733.9	837.2
32.5°	398.5	445.4	535.3	677.5	791.5
35°	328.7	377.0	473.6	623.8	747.3
37.5°	257.6	308.6	411.9	571.5	703.0
40°	190.5	241.5	352.8	519.2	657.4
42.5°	127.5	178.4	292.5	468.2	614.5
45°	69.8	116.7	237.5	421.3	571.5
47.5°	37.6	64.4	183.8	375.6	523.2
50°	28.2	34.9	135.5	327.3	472.2
52.5°	24.1	26.8	93.9	276.4	421.3
55°	20.1	21.5	63.1	232.1	368.9
57.5°	16.1	17.4	47.0	187.8	312.6
60°	12.1	14.8	41.6	144.9	256.2
62.5°	9.4	12.1	38.9	106.0	202.6
65°	6.7	9.4	34.9	72.4	148.9
67.5°	6.7	10.7	29.5	47.0	100.6
70°	5.4	14.8	25.5	30.9	56.3
72.5°	5.4	16.1	21.5	21.5	21.5
75°	5.4	17.4	18.8	18.8	18.8
77.5°	5.4	16.1	17.4	16.1	16.1
80°	5.4	14.8	14.8	14.8	14.8
82.5°	5.4	13.4	14.8	14.8	12.1
85°	5.4	12.1	14.8	14.8	10.7
87.5°	4.0	12.1	13.4	13.4	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)